

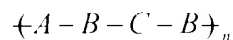
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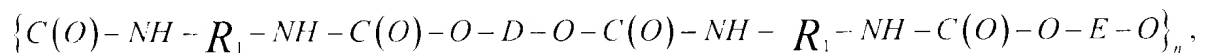
1 17. Biomedical polyurethane based on diisocyanate
2 linked polyester polymer and diol components, said diol
3 component having a uniform block-length.

1 18. Biomedical polyurethane according to claim 17,
2 having the following formula:



3
4
5
6 wherein the B denotes diisocyanate moieties, A denotes
7 a polyester moiety, C denotes a diol moiety and n is the
8 number of recurring units.

1 19. Biomedical polyurethane according to claim 17
2 consisting of repeating units of the following formula



3
4
5
6 wherein R_1 is an n-butylene moiety, D is a polyester
7 moiety, E is an n-butylene diol, an n-hexylene diol or a
8 diethylene glycol based moiety and n indicates the number
9 of repeating units.

1 20. Polyurethane according to claim 17, wherein E is
2 diol or an XYX reaction product of diol (X) and
3 1,4-butane-diisocyanate (Y).

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1 21. Polyurethane according to claim 17, wherein the
2 blocklength is the same for at least 90%, more in
3 particular at least 95% of the diol units.

1 22. Polyurethane according to claim 17, wherein the
2 polyester is based on a polyester prepared by ringopening
3 polymerization, preferably a random copolyester.

1 23. Polyurethane according to claim 22, wherein the
2 random copolyester is a copolyester of lactide,
3 glycolide, trimethylene carbonate and/or ϵ -caprolacton.

1 24. Polyurethane according to claim 17, wherein the
2 polyester is based on lactic acid, succinic acid,
3 diethylene glycol, 1,4-butanediol, 1,6-hexanediol and/or
4 diethylene glycol.

1 25. Polyurethane according to claim 17, obtainable by
2 a process comprising reacting the polyester and an
3 isocyanate endcapped diol component, the ratio of
4 polyester endgroups to isocyanate groups being at least
5 two, followed by reacting the resulting prepolymer with
6 water.

1 26. Polyurethane according to claim 25, based on a
2 copolyester of lactide and ϵ -caprolacton containing 5 to
3 95, preferably 40-60 % of units of lactide and 5 to 95,
4 preferably 40-60 % of units of ϵ -caprolacton, based on
5 number.

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1 27. 1,4-Butanediol, 1,6-hexane diol, or diethyleneglycol
2 based diol component having a uniform blocklength, said
3 component being an XYX reaction product of diol (X) and
4 1,4-butane-diisocyanate (Y).

1 28. Process for the preparation of a biomedical
2 polyurethane according to claim 17, wherein the
3 diol component is reacted with the reaction product of at
4 least two moles of diisocyanate and the polyester.

1 29. Process for the preparation of a biomedical
2 polyurethane according to claim 28, wherein the
3 diol component is reacted with the reaction product of at
4 least two moles of diisocyanate and the polyester.

1 30. Process for the preparation of a biomedical
2 polyurethane according to claim 17, wherein the
3 random copolymer is reacted with the reaction product of
4 at least two moles of diisocyanate and the diol
5 component.

1 31. Implants based on the biomedical polyurethanes
2 according to claim 17, having a porosity of 50 to
3 99 vol. %.

1 32. Use of a polyurethane according to claim 17, as
2 biodegradable polymer implant in meniscus
3 reconstruction.

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1 33. Biomedical polyurethane having a phase separated
2 morphology, comprising soft segments of polyester and/or
3 polyether components and hard segments, said hard segments
4 consisting of diol component having a uniform block length,
5 and wherein the diol component on the one hand and the
6 polyester and/or polyether components on the other hand,
7 have been linked by diisocyanate, preferably an aliphatic
8 diisocyanate.